

鹽度對鹹鴨蛋中禽流感病毒與新城病病毒的影響

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摘要

本研究為確定鹽度對鹹鴨蛋中高病原性家禽流行性感冒 (highly pathogenic avian influenza, HPAI) H5N8 病毒與新城病 (Newcastle disease, ND) 病毒(石井株)感染力的影響。生鴨蛋分別接種 2^7 HA 病毒力價的 HPAI 病毒與 ND 病毒，之後鴨蛋以熱熔膠密封並分別在室溫下浸漬於飽和食鹽水中 10 天與 15 天。二種病毒亦分別直接與等體積飽和鹽水混合。鹹蛋乳劑與病毒-鹽水混合液分別接種雞胚胎蛋以評估病毒的感染力。結果顯示，鹹蛋中 H5N8 病毒在浸漬 10 天與 15 天後失去感染力。然而，鹹蛋中 ND 病毒在浸漬 10 天與 15 天後仍具感染力。此外，二種病毒直接與飽和鹽水混合 10 天與 15 天後皆失去感染力。本研究結果可作為來自 AI 病毒與 ND 病毒污染場鹹鴨蛋的安全性的參考。

Effect of salinity on avian influenza virus and Newcastle disease virus in salted duck eggs

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The present study was performed to determine the effects of salinity on infective potential of highly pathogenic avian influenza (HPAI) H5N8 virus and Newcastle disease (ND) virus (Ishii strain) in the salted duck eggs. The raw duck eggs were inoculated with the 2^7 HA titers of HPAI virus and ND virus, respectively. The eggs were then sealed with the hot melt glue and soaked in the saturated brine at room temperature for 10 and 15 days, respectively. Both of the viruses were also directly mixed with equal volume of the saturated brine. The homogenate of the salted eggs and the virus-brine mixture were inoculated into the embryonated chicken eggs to evaluate the infectivity of the viruses. The H5N8 virus in salted duck eggs lost infectivity after soaked for 10 and 15 days. However, the ND virus in salted duck eggs remained viable after soaked for 10 and 15 days. In addition, both of the viruses lost infectivity after directly mixture with the saturated brine for 10 and 15 days. The present results would be a reference for the safety of the salted duck eggs from the farms contaminant with the AI viruses and ND viruses.